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ABSTRACT

This collection of articles was produced by the Center for Prisoner of War Studies, whose purpose is fourfold: (1) to provide information useful for planning the long-term health care of prisoners of war (POW's); (2) to evaluate the prison experience so that military survival training programs may be effectively planned; (3) to enumerate the factors characterizing the health and adjustment of families of POW's, in order to meet their needs in the future; and (4) to compile a variety of reference materials useful for health professionals who deal with POW's and their families. To this end, four articles are presented, one giving a longitudinal study of POW's and their families, the others analyzing various aspects of stress and the captivity experience. The POW's relation to his family receives special attention; it is recognized that POW's spouses and children also experience strains whose resolution is essential to successful post-imprisonment adjustment. (Author/BP)

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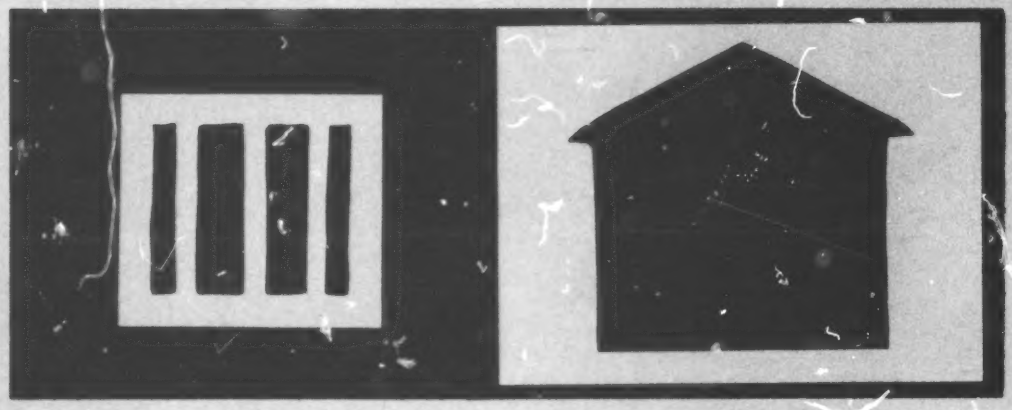
PROLONGED SEPARATION:

THE PRISONER OF WAR AND HIS FAMILY

Edna J. Hunter
Editor



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prolonged separation

the prisoner of war

and his family

EDNA J. HUNTER, EDITOR

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We can no longer pretend that somehow, through mysterious processes, the problems of families will solve themselves ... Nor can we hide behind the illusion that the problems families face are not a legitimate concern of Government ... For decades, government at all levels has stumbled blindly from program to program and policy, without really stopping to consider whether they contribute to the health and well-being of families ... It is so important that, as a people, we set as our goal a society that doesn't just tolerate family life but nourishes it and helps it grow strong and flourish.

- Walter F. Mondale

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PREFACE

The setting is one of uncommon beauty - near the tip of San Diego's Point Loma, a peninsula which reaches out into the Pacific Ocean. The building is a modest one, a barracks in which were garrisoned the Army men charged with the World War II defense of the coastline. Inside this building today, a handful of researchers is involved in studying some of the somber effects of war upon a unique population: the prisoner of war, his family, and the family of the missing or killed in action.

The Center for Prisoner of War Studies is a joint Army-Navy-Marine Corps research organization. It is a satellite activity within the Naval Health Research Center, and is indirectly responsible to the Offices of the Surgeons General, Department of the Army and Department of the Navy. Overall policy planning for the Center for Prisoner of War Studies is in the hands of a Prisoner of War and Missing in Action Health Care Task Group, comprising representatives from the Army, Navy, and Marine Corps.

Technical and scientific guidance of the Center for Prisoner of War Studies is the joint responsibility of the Scientific Director of the Naval Health Research Center and the Prisoner of War/Missing in Action Consultant Panel, consisting of Army and Navy technical advisors, civilian specialists, and representatives of national organizations with competencies in the areas addressed by the Center for Prisoner of War Studies. Panel members are invited to the Center for Prisoner of War Studies on an as-needed basis by the Scientific Director of the Naval Health Research Center to guide the detailed development of study projects and to assure their scientific soundness.

The Center for Prisoner of War Studies was established within the command of the Naval Health Research Center because its specific mission is a reflection and extension of the broader mission of the parent organization. That mission is to conduct research on the medical and psychological aspects of health and performance of naval personnel -- that is, to identify and evaluate those physical, psychological, social and environmental factors which have a significant influence upon the health and performance, and hence, the effectiveness of military personnel.

The mission of the Center for Prisoner of War Studies is congruent with the above, but is applicable to a limited population, namely, prisoners of war, and the families of prisoners, and of those missing or killed in action. The mission of the Center for Prisoner of War Studies is to study the effects of captivity upon the future adaptation of repatriated prisoners, and to explore the effects of long-term absence of a parent upon the adjustment of the family. The overall goal of these investigations is to supplement existing knowledge, and to broaden man's understanding of the detrimental or beneficial effects of prolonged stress upon human effectiveness.

The specific goals of the Center for Prisoner of War Studies are four-fold. The first major goal is the derivation of information useful in planning the long-term health care of this population, and in ameliorating future adjustmental problems. The second goal is the evaluation of the prison experience itself -- the conditions of captivity and the coping mechanisms used by prisoners in withstanding the ordeals imposed by their captors -- for the purpose of providing information to be used in validating military survival training programs and in delineating parameters significantly related to subsequent life adjustment. The third goal is the enumeration of those unique factors which characterize the health and adjustment of the families of servicemen who were prisoners of war or missing or killed in action, both during the absence of the military members and following the resolution of their casualty status, in order that military departments might be better prepared to meet the needs of such families in future international conflicts. The fourth goal is the compilation of a variety of reference materials about prisoners of war and those missing or killed in action which can be utilized in the development of training programs for health professionals who will be called upon in the future to

render care and treatment to repatriated prisoners of war and family members of prisoners and those missing or killed in action

The research staff of the Center for Prisoner of War Studies have now completed the fourth year of this longitudinal follow-up of the men and their families. A Conference on Military Family Research, sponsored by The Office of Naval Research and jointly hosted by the Naval Health Research Center and the Naval Postgraduate School, was held in San Diego, California, 1-3 September 1977. In the following pages are a series of four papers which were presented at that Conference as part of a panel, entitled, "POW Family Research." Participants included Dr. Edna J. Hunter, Head, Family Studies Branch; Dr. Charles W. Hutchins, CDR USN, Head, Captivity Stress Branch; and Dr. Milton Richlin, of the Medical Specialties Branch of the Center for Prisoner of War Studies. The authors thank Ms Lois West and Ms Lucile Cheng for their editorial assistance.

The views presented in these papers are those of the authors. No endorsement by the Department of the Navy or the Department of the Army has been given or should be inferred.

*THE LONGITUDINAL STUDIES OF PRISONERS OF WAR AND THEIR FAMILIES: AN OVERVIEW**

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Head, Family Studies Branch

Center for POW Studies

JOHN A. PLAG

Director, Center for POW Studies

*Naval Health Research Center Publication No. 77-26

INTRODUCTION

Humanitarian concerns for the eventual welfare of our prisoners of war in Vietnam during the late 1960s, as well as concerns for the immediate and long-term welfare of their families and the families of those men declared missing in action, were the major motivating factors which led to the establishment of the Center for Prisoner of War Studies in early 1972.

Findings of earlier studies of the POWs of prior wars have revealed a significant excess mortality after release from captivity for Pacific prisoners in World War II and those taken prisoner during the Korean Conflict, when compared with non-prisoner veterans; and increased morbidity for all groups of World War II and Korean War prisoners when likewise compared with non-prisoner samples.

But our concerns were more than merely humanitarian, for we foresaw the opportunity of collecting valuable data with respect to such phenomena as the effects of stress upon human performance, the adjustments of families and particularly of children who endured long periods of father absence, and the opportunity of understanding the etiology and pathogenesis of the excessively high repatriated-prisoner-of-war (RPW) morbidity and mortality rates.

The activities of the Center for Prisoner of War Studies during 1972, and prior to the release of the Vietnam POWs during Operation Homecoming in early 1973, were directed primarily toward the accomplishment of three major goals.

The first was to accumulate as much information as possible about prisoner-of-war matters -- what was known to be expected in terms of the health of the potential returnees, problems of their reacculturation, what was known of POW problems from former wars, and the multitude of advice from former POW experts and the anecdotes of former POWs themselves. We obtained access to data tapes of morbidity and mortality findings for World War II and Korean War POWs and their controls through the period up to 1965. Unfortunately, Homecoming in early 1973 was upon us before we had had the opportunity of exploring the interrelationships of those data to the fullest.

Our second objective was to prepare a medical examination protocol which was extensive, would not fail to detect pathology, if in fact pathology existed, and was organized in a standard fashion so that comparisons could be made between returned prisoners exposed to varying

conditions of imprisonment, and organized as a baseline of information for future medical studies.

Finally, our third goal was to study and define the scope of the difficulties of the long-term absence of husbands or fathers which were being experienced by literally hundreds of POW/MIA families. By the time the announcement came that the men would be released, our Family Studies staff had personally interviewed over fifty percent of all Army, Navy, and Marine Corps POW/MIA families. We had collected a very valuable fund of knowledge which served as a basis for studying and predicting family adjustments subsequent to the Homecoming reunions. Initially we were engaged primarily in humanitarian endeavors with little emphasis upon POW research or upon research dealing with POW/MIA families. On the other hand, while we provided many clinical services to families, either directly or through referral, we constantly anticipated the research potentiality of our data. At present, medical data, family interview data, service record information and correspondence, collected many times over on an annual basis, as well as most of the intelligence debriefing data, form the core of our archives for research and study.

For a variety of reasons, a single examining facility for each of the military departments was chosen as a location for conducting the annual physical re-examinations of the POWs -- the Naval Aerospace Medical Research Laboratory in Pensacola, Florida, for the Navy and Marine Corps POWs and the Brooke Army Medical Center in San Antonio, Texas, for the Army POWs. Over the past four years our efforts have been extended to include families of servicemen missing in action and killed in action. We have also examined the adjustment of families undergoing separation due to routine deployments of their husbands and fathers. In other words, after the Homecoming Operation had been completed, the Center moved into a more noticeable research mode.

Within the past year, after much urging and with dogged determination, we succeeded in examining a comparison group of Navy men and their families -- men who were matched man-for-man with the POWs on the basis of salient demographic and personal history characteristics. For the Marine Corps, comparison subject selections are currently in progress, and with the approval of funding, it is our hope that the Army comparison group can be defined in the near future.

Although it has been difficult to separate the clinical from the research aspects of the Center's activities, it is quite obvious that we have moved from a completely individualized, humanitarian, and service approach to the POW problem during our early years to one which is

almost entirely research oriented now.

In our short existence of approximately five years, the POW Center has published, or had accepted for publication, over 100 articles and two books, with many others now in preparation.

The Center for POW Studies has three major branches: (a) medical specialties, (b) family studies, and (c) the captivity branch whose data are of the intelligence debriefing variety from Vietnam. We also have an in-house information processing and an archival function. We maintain close liaison with other governmental agencies who have an interest in POW issues, such as the State Department, the Veterans Administration, and the National Research Council of the National Academy of Sciences, as well as with foreign governments on unclassified topics pertaining to POW and MIA matters.

There exist for study four different POW populations: (a) those incarcerated during World War II, (b) those from the Korean Conflict (c) the small but interesting group which comprised the crew of the Pueblo, and (d) the prisoners recently returned from Vietnam. We are presently involved in studies dealing with three of these groups, but most of our attention has been focused upon the Vietnam returnees and their families.

Time limits my presenting an extensive review of the many hypotheses which we are testing. A simple enumeration of some of these will have to suffice, such as:

(a) Are there significant differences in the later health and adjustment of officer versus enlisted men which might reflect differences in coping abilities during captivity?

(b) Are there differences in the later health and adjustment of former prisoners which are related to length of imprisonment, conditions of captivity, time spent in solitary confinement, one's perception of the stresses of torture, etc?

(c) Does the stress of captivity have a cumulative effect, or perhaps an accelerating one, so that in future years the returned POWs will pay an additional price for the years of incarceration they endured?

(d) Do the members of the families also show heightened vulnerability to psychological and physical illness which relates to the social and emotional stresses they endured while their husbands or fathers were incarcerated?

(e) Will there be differential effects of father-absence on children depending upon the age

and sex of the child and the length of father-absence? Do POW/MIA children really differ in emotional social adjustment from non-RPW/MIA children?

As usually occurs in a massive research program of the type we are undertaking here, payoffs may have implications which extend far beyond the immediate accumulation of knowledge about the limited populations being studied. The development of specific measurement techniques for assessing family functioning and adjustment is a case in point. Other examples are the reexamination of the Military Code of Conduct and its interpretation, the modification of the SERE School curriculum to incorporate research results pertaining to the role of personality on behavior under duress, the matching of a student's personality profile with an optimum resistance posture, the more appropriate selection of personnel for high-risk assignments, and a study of the role of cross-cultural factors in determining a POW's adjustment to captivity. These are but a few examples of ways in which our research efforts may have direct payoff for the operational forces.

Moreover, a better understanding of family research can perhaps reap measureable benefits as the result of happier, healthier families with higher morale, more efficient performance on the part of the service member, and fewer requirements with respect to health-care services.

This briefly, is an overview of our POW research program -- past, present, and future.

Each captivity experience of course, is clearly unique in terms of the nature of the captive, captor culture, length and conditions of internment, attitudes towards the war, and many other factors. Nonetheless, there appears to be a consistency with which captivity effects appear across time and across widely divergent settings and populations of POWs.

It would not be unexpected that the physical stresses of the South Vietnam POW experience and the overwhelming psychological stresses of the North Vietnam experience would be reflected in differential residual symptomatology manifested by the men and their families both at the time of release and over time. Moreover, the latency and degree of incarceration effects could be expected to be tempered by the time of capture and the duration of captivity.

Follow-up studies of concentration camp victims and American prisoners of war of the Japanese, North Koreans and North Vietnamese indicate that permanent psychic and psychophysiological damage can indeed occur to adult human beings if they are subjected to prolonged malignant and cataclysmic stress. It has also been emphasized that the cumulative weight of findings

from existing follow-up studies leads to the conclusion that the extraordinary stresses of incarceration are related to a heightened vulnerability to physical and psychological health problems over the long-term. Such heightened vulnerability can perhaps explain the delay, sometimes as long as five to ten years, in appearance of symptoms in POW populations that seemed remarkably free of pathology immediately upon release from captivity.

The number of POWs captured and interned in Southeast Asia (766) was very small indeed when compared with the numbers held captive in Korea (7,140) or World War II (130,201). The men returned from Southeast Asia in early 1973 were a highly select group compared with the POWs of earlier conflicts. The majority were officers, and as a group they were older and more highly educated.

Of those men captured in the North, all but one were air crew members. Five hundred ninety-one Americans, including 25 civilians, were repatriated in early Spring, 1973. An additional 84 men, held prisoner anywhere from 36 hours to five and one-half years, escaped or were released prior to 1973. The military group who returned in 1973 included 325 Air Force, 77 Army, 26 Marine Corps, and 138 Navy POWs.

What factors determine who dies and who survives captivity? Certainly, climate, living conditions, work load, medical care and captor treatment are some of the factors.

During this session CDR Charles Hutchins will first describe the experience of the American POWs held for varying periods of time in Southeast Asia from 1964 through early 1973. He will also examine how they coped with captivity and how information gleaned from their experience has prompted changes in survival training programs and has served as a basis for further research efforts into how men cope with stressful environments.

After we review the captivity experience per se, we will then hear from Dr. Milton Richlin on the physical and psychological residuals -- both positive and negative -- evidenced in these men both at the time of Homecoming and in the several years subsequent to return. Only then can we begin to understand the effects of the POW experience upon the men's families and how the families also experienced their own form of "captivity."

*THE CAPTIVITY EXPERIENCE OF AMERICAN PRISONERS OF WAR IN SOUTHEAST ASIA**

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Head, Captivity Stress Branch
Center for POW Studies

*Naval Health Research Center Publication No. 77-2

INTRODUCTION

The purpose of this paper is to describe the physical and psychological stress encountered by American prisoners of war (POWs) in Southeast Asia (SEA). The major problem associated with any attempt to describe this experience is that of conveying it in a way that the reader can have some empathy with the POW's plight. This proves to be a difficult task since captivity is totally foreign to the average American's experience. The total loss of control over one's life, the total loss of any remnant of human dignity, the constant fear of pain and death place it on a level almost beyond the comprehension of rational men. Perhaps an analogy would be of some help in this dilemma. While every person has his own unique situation which creates fear and anxiety, one which is shared by most of us is the dentist's chair. If we can recall the anxiety and fear as we waited for that fateful appointment, the one fact that stands out is that the terrible anticipation was almost worse than the pain itself. If we extend that uncertainty, fear and anxiety for five years we begin to get a grasp of the captivity experience and hopefully a modicum of appreciation of the trauma and stress it wrought on those who endured it.

Another factor which becomes apparent is that there was no single captivity experience. This experience depended on: (a) where the man was captured (the experience in the North was significantly different from that in the South); (b) when he was captured (treatment changed for the better after the fall of 1969); (c) his rank (senior men usually received harsher treatment); (d) the extent of his injuries, etc. Finally this experience, like beauty, was in the eyes of the beholder. Two men received exactly the same treatment; one perceived it as extremely stressful, the other as merely an unfortunate duty station.

THE CAPTIVITY EXPERIENCE IN SOUTH VIETNAM

The experience of the 117 Army and Marine Corps surviving POWs detained in South Vietnam differed somewhat according to the specific area involved; however, it could be characterized as a constant struggle for survival against the harsh jungle environment. The average duration of captivity in the South was slightly in excess of four years. Physical deprivation due to a desperate lack of food and medical supplies (the camps were at the very end of the Viet Cong supply line) created an atmosphere of extreme hardship. Dysentery, malnutrition, malaria, intestinal parasites and hunger edema were a constant irritant to this already intolerable

situation. Existence was a day to day matter of simply trying to stay alive. Due to the fact that the POW shared this experience with the Viet Cong fighting man, there was less enemy harassment and brutality than found in the North. This fact was probably attributable to a mutual respect of one fighting man for another.

The POWs held in the South were generally kept in small camps containing no more than 25 men, fewer than 5 or 6 were usually American. They were kept continually on the move in many areas due to the presence of Allied ground and air operations in the immediate area of the camps. Life in these camps was particularly frustrating since on some occasions allied operations could be observed, yet heavy natural camouflage kept them from being discovered.

These POWs lived in small bamboo huts, caves, underground bunkers and cages just big enough to allow the POW to sit or lie down on a bamboo bed. Each night the POW was chained to his cage for detainment; occasionally leg irons were used for this purpose. During the day the POWs were usually allowed to communicate freely with one another. In some incidents the men gathered their own food, firewood and building supplies (Rowland, 1975).

Those interrogations which did occur usually took place within the first month of captivity and dealt with the operations in which the POW was involved, the chain of command and the military installation to which he had been attached. It was during these interrogation sessions that the majority of coercion was leveled against the POW. This coercion usually took the form of threats of death, withholding of medical treatment, and occasionally a beating.

Another factor which must be considered when discussing differences between the captivity experience in the North and South is the difference in the POWs themselves. Sixty-seven percent of the POWs captured in the South were enlisted Army and Marine Corps personnel while 98% of those captured in the North were Navy and Air Force officers. Related to this fact, the POWs in the South tended to be younger, less educated, less career motivated, and a higher proportion were unmarried than the POWs held in the North. Approximately 30% of the Americans known to have been captured and detained in the South did not survive the ordeal. This rather high mortality rate was due mostly to the extreme physical harshness of their environment, although five POWs were known to have been executed by the Viet Cong.

CAPTIVITY EXPERIENCE IN NORTH VIETNAM

In contrast to the severe physical deprivation characteristic of the captivity experience in the South, the experience of the 153 Navy and Marine Corps POWs detailed in North Vietnam was characterized by a formal prison system complete with detailed camp rules. Food was barely adequate for survival and consisted of bread and pumpkin soup served twice daily. All but one of these Navy and Marine Corps POWs captured and detained in North Vietnam were aviators. The first American was shot down in August of 1964 and was the only American captive of the North Vietnamese for six months. From February of 1965 until November of 1968 the prisoner of war population grew steadily. Then, because of a bombing halt there were no Americans taken prisoner until the resumption of bombing in late 1971 (Mowery, 1975). The median duration of captivity for these men was six years.

There were three phases of captivity treatment in North Vietnam. The first year and a half saw the POW receive little physical punishment. Control was maintained with pressure of a predominantly psychological nature, mainly solitary confinement. The second phase lasted until the fall of 1969 and was marked with brutal torture and demands for propaganda tapes, press interviews and letters to their fellow pilots and congressmen. It was during this period that the POWs were threatened with war crime trials and 50 of them forced to march handcuffed through the streets of Hanoi as part of the infamous Hanoi parade. This episode nearly ended in tragedy when the crowd became so irate that the Vietnamese military had to intervene. The third phase of treatment began in the fall of 1969 and lasted throughout the remainder of captivity. This phase was characterized by a definite improvement in treatment. Torture was virtually eliminated during this period. The number of meals increased from two to three, with a side dish of fish added to the main meals and the cigarette ration was increased from three to six per day. The POW's life during this phase was more that of simple incarceration, with the torture sessions mainly a thing of the past.

To understand the captivity experience in the North more easily it is best to analyze it in five segments -- shootdown and capture, initial interrogation, solitary confinement, small group cells and large group cells.

SHOOTDOWN AND CAPTURE

This was one of the most traumatic aspects of the entire captivity experience. At one moment the man was in his comfortable and familiar cockpit, the next he was alone in alien environment struggling for his very life. In densely populated North Vietnam, the average duration of evasion was approximately twenty minutes. The first enemy personnel to get their hands on the POW were usually irate civilians intent on revenge. Mistreatment at the hands of these civilians was common and usually took the form of beatings with crude farm implements and stonings. The POW was next turned over to the local militia for transit to Hanoi. Very little interrogation occurred during this phase because of the language barrier.

The POW's mental state at this time was one of shock, helplessness and an overpowering feeling of aloneness. Uncertain of his fate, he conjured up every captivity horror story from his past experience. What will they want from him? Will he be able to resist? A multitude of feelings temporarily overpowered him -- fear, anger for having gotten himself into this situation, self pity, and pain from ejection injuries or beatings by civilians. After the shock of his capture subsided, the POW typically entered a state of hyper-alertness and became keenly aware of his surroundings and the minute habits of his captor. It was at this point that the POW determined his chances for survival and began to assess everything in terms of his survival.

Initial Interrogation in Hanoi

Once the POW arrived in Hanoi, the full impact of his total loss of control over his life began to take hold. His clothes and personal affects were taken and in their place he was given a pair of shapeless black pajamas. Strict rules were laid down concerning his behavior. He was not to talk unless spoken to; bow to all guards and prison personnel; have absolutely no communication with other prisoners; and was told precisely when to sleep, eat, and relieve himself.

It was at this point that the POW was most vulnerable. He was completely on his own with only memories of the Code of Conduct, his prior training and his own set of values to guide him. He had no feedback from his fellow POWs as to how well he was doing. Each man was faced with the same question: How can I survive this terrible ordeal without betraying my fellow POWs or my country?

It was during this phase of captivity that torture was used extensively. Each man was interrogated for several hours each day for weeks or even months at a time, depending on his seniority, resistance stance, or the desires of the interrogators. Most of the POWs in the North were career aviators and most went into these interrogations with the firm resolve to give only name, rank, serial number and date of birth. They believed anything else was contrary to the Code and definitely not consistent with their own concept of the performance of a career military officer. The enemy countered this resolve with a concerted campaign of torture, terror and deprivation of food, medical treatment and sleep. The most prevalent form of torture was a technique known as the ropes. While there were many variations of this form of torture, it usually took the form of tying the elbows behind the back and tightening them until they touched. A popular variation of this was to arch the back with a rope stretched from the feet to the throat. Other forms of torture included: chains and manacles placed on legs and ankles with a heavy iron bar; cuffs of a ratchet type that were tightened until the metal bit into the flesh, sometimes down to the bone; aggravation of injuries received at ejection, e.g., twisting a broken leg; beatings with bamboo clubs, sticks, fists, rubber hoses or fan belts; forced self-mistreatment, e.g., forced kneeling on a concrete floor or on a small stick, forced standing at attention, and forced sitting on a low stool with ankles shackled and tied together with arms behind the back.

It soon became apparent that a concerted coercive interrogation could produce compliance behavior in the most determined and patriotic of soldiers. The POW had to learn the delicate balance between proper resistance and survival. This period represented a time of severe depression and guilt for many POWs as their behavior failed to match their unrealistic ideals. The enemy used this guilt to further his own demands. Having once gotten the POW to admit something he would have preferred not to, the captor held it over his head by threatening to reveal the fact to his fellow POWs.

The usual type of information desired was the aircraft flown, mission, squadron personnel and biographical data. Very few specific questions regarding technical aspects of the aircraft or onboard equipment were asked. In retrospect it appears that a major purpose for these interrogations was simply to establish an attitude of compliance on the part of the POW, i.e.,

the POW was taught his position in this Oriental prison environment.

Solitary Confinement

After the initial interrogations were over, the POWs were kept in solitary confinement for periods ranging from a few weeks to four years. Their entire world consisted of an 8 foot by 8 foot concrete room, bare board bunks, a heavy iron braced door with a shuttered peephole and a small barred window looking onto a wall crowned with broken bottles (Naughton, 1975). For many this was the worst experience of their entire captivity. Although communication with other cells was sometimes possible, it was usually difficult. One man spent three years without ever communicating with another American. For an outgoing, action-oriented aviator, this time spent alone was pure agony. He had to learn to slow the pace of his mental activity. He spent long hours of self evaluation and introspection into his personal value system. He learned to stretch each activity to its fullest. Smoking a cigarette became a major production. Decisions on how to hold it, whether to smoke the whole cigarette at one time or in small intervals would eat up large segments of time. His mind demanded stimulation so he invented an intricate fantasy life so real at times he wasn't completely sure he wasn't somehow actually doing the things he fantasized. Homes were built brick by brick, board by board; chess games were played and replayed, all in the mind.

It was during those moments where communication was possible that the POW got his first feedback on how others fared under interrogation. Up to this point he felt that he was the only one who went beyond name, rank, serial number and date of birth. Word from his fellow POWs that they too were forced to comply under extreme torture reduced his guilt and depression. He was taught to bounce back. The motto was "you may have been bent but you're never broken." Most POWs felt that these first communications from their fellow POWs (given at great risk of detection and severe reprimands) were the greatest morale builder of their entire imprisonment.

Small Group Cells

After the solitary confinement, which varied in duration for each POW depending on when he was captured, came a phase where there were two, three or four men to a cell. For most POWs, moving from solitary confinement to a cell with roommates was the biggest improvement while in captivity. For the first time direct communication with another American was possible. The POWs spent the first weeks and months catching up on the experiences of other POWs. All was not

entirely positive in this shift. Close living with three other men in a small cell where all eat, sleep, and perform hygienic functions in the same room demands a level of adjustment and concession by all concerned. Incidental individual traits such as snoring, tidiness habits and eating habits can take on enormous dimensions of importance after years of living together in a small cell. A few men even found that they preferred solitary to the conflicts inherent in this small group situation.

Coping with these interpersonal problems became a major effort of the POWs. One method that seemed to help was routinization of all the events of the day -- exercising, sweeping the floors, telling stories, cleaning the cell, communicating with other cells, etc. All these activities were given a designated time and priority. This routinization of the daily events provided an element of order to life and permitted some control over one's own action, something sorely missed in a POW's over-controlled existence.

Large Group Cells

As a result of the Son Tay raid in November of 1970, the North Vietnamese began to concentrate all of the POWs in the Hanoi area. As a result of this action large groups of 25 or more men were placed together in a single cell. In these large groups, a complex POW organization known as the Fourth Allied POW Wing was formed. The Wing identified the prescribed forms of communications and defined the release posture. Another product of this POW organization was the establishment of Wing Policies known as the PLUMBS. These policies covered all areas of prison life from command authority to resistance conditions.

Another factor created by the increase in group size was the influence of peer pressure in determining a POW's behavior. Some POWs discovered a boldness in themselves, and felt compelled to exhibit ultimate resistance at a time when treatment was relatively good and survival assured. This display of hardened attitude was probably in some ways compensation for less firm resistance in the early years of captivity and was not engaged in by the senior men.

PERCEPTION OF CAPTIVITY

One of the main findings emanating from studies conducted at the Center for Prisoner of War Studies was that each POW perceived his situation in a unique manner. This difference in the perception of the captivity experience was a function of his personality, his experience with stress, and his characteristic way of interacting with his environment. Certain personality

traits resulted in the POW receiving mistreatment unnecessarily. Ongoing research at the Center has shown that a man's locus of control -- whether he perceives his reinforcement as being the product of his own efforts (Internals) or under the influence of fate or others (Externals) -- has a significant relationship with performance in a coercive environment. This research has shown that those men who are internal do better under both hard sell and soft sell interrogation than do externals.

In conclusion, I hope that this brief overview of the captivity experience of American POWs in SEA has provided some insight into the main dimensions of this experience. Drs. Richlin and Hunter will now discuss some of the effects of this experience on the POW's subsequent physical and psychological health and on the POW's reintegration into the family unit.

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*POSITIVE AND NEGATIVE RESIDUALS OF PROLONGED STRESS**

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As Dr. Hutchins has so carefully described, captivity in Vietnam was indeed a stress producing experience. From a medical point of view we can focus on six stresses which can be expected to have a high probability of resulting in illnesses or injuries:

1. Injuries and wounds suffered at capture or shootdown which received minimal or zero medical treatment.

2. Nutritional deprivation, particularly protein and specific vitamin deficiencies.

3. Exposure to insects, worms and other parasitic or infectious organisms which are endemic to the area, particularly when sanitary conditions were inadequate.

4. Exposure to weather extremes -- excessive heat or excessive cold, or dampness and rain.

5. Physical torture which could produce injuries directly, or exacerbate existing injuries or wounds.

6. Psychological "tortures" including isolation, fear of interrogation sessions, guilt over revealing information.

Our most complete data at this point have been compiled on the condition of the repatriated POWs (RPWs) at the time of their examinations during Operation Homecoming (O/H) in early 1973. The details of the procedures for these extensive medical and dental examinations have been described by LCDR Bill Berg in McCubbin, et al's. book Family Separation and Reunion; the results have been reported in a series of four articles coauthored by Dr. Berg and myself which are being published in the July, August, September, and October issues of Military Medicine, and a paper by Dr. Chuck Diem and myself on the dental data, which is in press in Military Medicine.

Before summarizing the above mentioned papers for you, I will digress briefly to introduce the concept of coping with stress, and how that relates to the "positive aspects" portion of the title of this paper. John Deaton, one of our graduate student assistants wrote his Master's Thesis on the coping activities of Navy POWs while they were in solitary confinement. The purpose of the study was to determine the "time killing" adaptational strategies these aviators had employed for coping with this stressful experience. As one of the POWs, CAPT Howard Rutledge described the experience: "It's hard to describe what solitary confinement can do to

unnerve and defeat a man. You quickly tire of standing up or sitting down, sleeping or being awake. There are no books, no paper or pencils, no magazines or newspapers. The only colors you see are drab gray and dirty brown. Months or years may go by when you don't see the sunrise or the moon, green grass or flowers. You are locked in, alone and silent in your filthy little cell breathing stale, rotten air and trying to keep your sanity." (p.30)

In the Navy sample of 138 aviators the range of solitary confinement was from 0 to 286 weeks, with a mean of 39 weeks and a median of 10 weeks.

The "most useful" behavior was communication, with thinking about the future, and physical exercise following closely behind; the least useful were: thinking about suicide, talking to oneself, and worrying about the family.

The prison camps maintained strict regulations against communication. This stipulation was enforced by guards roaming the halls. To be caught meant severe torture. However, the POWs developed ingenious methods which were taught to each other. Again quoting CAPT Rutledge: "For short distances we tapped with fingers; for longer distances we tapped with the ball of the fist or elbows against the floor. Other legitimate noises were never wasted -- a cough, a sniff, spitting, and/or clearing the throat were converted into simple communication efforts. One specially effective ruse was to sweep through a compound, using the broom movement to signal messages to the entire area. Or, if a man walked by another's cell, he could drag his little Ho-Chi-Minh sandals in code." (p.49)

Deaton's results further indicated that coping activities during solitary confinement developed according to a definite time pattern. Initially, the POW was concerned with the past, particularly his family, and spent the greater portion of his time thinking about their ability to adjust to his absence, and ruminating about his past experiences. Approximately 85 percent of the men reported using this type of coping activity by the end of the fourth week in solitary. The coping activities which developed later in solitary were related to self-development; thus, during the initial four weeks only 31 percent reported using invention of an object; learning new skills, or memorizing stories. The occurrence of the self-development activities later in solitary is also consistent with a number of theories of motivation (e.g., Herzberg, Mausner, & Snyderman, 1959; Maslow, 1954). These theorists argue that certain minimum conditions must

exist (i.e., the satisfaction of basic physiological and safety needs) prior to any concern for self-development. When the RPW became more familiar with his environment and some element of stability was present, his thinking possibly became more creative and self-development activities became viable. Thus, the use of self-development activities may be inversely related to (a) the degree of physical deprivation, and (b) the perceived stress level.

In effect then these action-oriented individuals continued to be as physically active as possible, but gradually became more introspective, and used their minds to face the challenge of filling the day. Many of the RPWs have reported that they consider the development of an introspective skill as a very positive aspect of their captivity experience, one which they expect to be of enduring value for the rest of their lives.

Let us now look at the physical and psychological condition of the RPWs at Homecoming, as a function of the six stresses ennumerated above. In order to simplify the discussion of the data, I will present them as a comparison between the 93 Army and Marine Corps POWs who were captured in South Vietnam (SVN), and the 148 Navy and Marine Corps aviators who were held captive in North Vietnam (NVN).

First, is the injury pattern, if any, sustained at the time of capture. Once such injuries had healed, or stabilized, the POWs did not usually suffer any further major injuries. However, in a captivity situation, even a minor injury can be life threatening, primarily because of the danger of infection. The injury patterns received are directly related to, and stem from, the group to which a POW belonged. The NVN group, the aviators, suffered their injuries when their planes were shot down. These were usually orthopaedic in nature, and were often a consequence of ejecting from a plane in less than optimal position. The injuries in the SVN group were acquired either in fire fights, (the result of mortars, grenades, and small arms fire), or in the crash of a helicopter (which could include bullet and shrapnel wounds as well as crash injuries). Such injuries involve a great variety of organs, and nearly always produce an open wound.

Injuries which showed a marked difference between the two groups include: Open Wounds of the Lower Legs (14 percent vs 3 percent) and of the Chest (5 percent vs 0 percent), which were significantly greater in the SVN group; 14 percent of the SVN group carried shrapnel back with them (Residual Foreign Body), compared with only one percent of the NVN group. In contrast, the

NVN Group shows a predominance of such injuries as Compression Fractures (27 percent), Dislocated and Deranged Knees (16 percent), Fractured Humeri (13 percent), and Dislocated and Deranged shoulders (nine percent). Injuries sustained at capture had their greatest influence in the first several weeks after capture. Among other liabilities, withholding of medical care for such injuries was used as a coercive device by the captors. As the time in captivity lengthened, the role of capture injuries in the POWs' survival lessened.

A second stress was nutritional deprivation. The difficulties and caveats necessary in making diagnoses from retrospective dietary histories have been acknowledged in earlier papers.

However, data reported by Hill (based on retrospective nutritional histories), quantified and confirmed the state of nutritional deprivation among POWs in the South. Moreover, such diagnoses in the NVN group usually refer to a general state of malnutrition, while diagnoses in the SVN group often mention specific vitamin deficiencies. In the SVN group, the greater incidence of malnutrition sustained by its members is reflected in the diagnoses: Avitaminoses and other Nutritional Deficiencies (47%), Edema and Swelling (possibly representing wet beriberi or the "hunger edema" of hypoproteinemia) -- 14%, Anemia (which is probably due to a combination of malnutrition and a chronic illness state) -- 6%, and Amblyopia, the symptoms of which are compatible with nutritional amblyopia (10%).

Hill's data on weight loss did not differentiate between North and South. He did show that men lost an average of 23% of their body weight, but due to improved conditions after 1969 had recovered all but 12-13 percent.

The third area of stress was exposure to intestinal worms, parasites and insects. As the saying goes, "to be a POW is to have worms"; in stool examinations, over 80 percent of each group were positive for one or more species of intestinal worms at Homecoming. Fortunately, chemotherapy successfully eliminated the ova within a few weeks for most of the men. Other more dangerous parasites were identified at Homecoming, particularly agents causing dysentery: There was a 23% incidence in the SVN group, and 37% in the NVN group of Amoebiasis; additionally, up to 5% of the RPWs had even more debilitating forms of infestation. Malaria, although endemic in Vietnam, was much more prevalent in the hot swampy areas of SVN. This fact is reflected by the incidence of 30% vs 4% in the SVN-NVN groups respectively. Incidentally, although chemotherapy at Homecoming cured most individuals, there remain several who are seropositive for malaria,

although symptom-free. They resemble individuals who are natives of an endemic malarial area.

Exposure to weather is a difficult variable to quantify, and its effects cannot be pinpointed with much accuracy. Undaunted, I will point out that many of the men reported a history of chronic cough during some periods of captivity; and that 15% in the SVN, and 3% in the NVN groups had Acute Upper Respiratory Infections at Homecoming. Furthermore, in the SVN group, 5% had Pneumonia, and another 5% had Influenza at Homecoming. Obviously, exposure to cold does not "cause" the above illnesses, but rather weakens the individual's general resistance. Overall, the degree of exposure to cold was certainly much less than that in the Korean conflict, where men lived in subzero weather with inadequate clothing and little or no heat.

Excessive heat and dampness, on the other hand, were serious problems in both areas of Vietnam although worse in the South. The discomfort of skin infections and rashes truly made life miserable throughout the year in SVN, and during the summer months in NVN. Milaria, or "prickly heat" was reported on an historical basis by most the RPWs; One can imagine the excruciating agony produced by this condition, and other skin diseases, while a man was manacled.

As Dr. Hutchins pointed out, the stress of physical torture has, of course, many psychological effects, the chief of which may be the fear produced by anticipating further sessions. But there were many individuals who still showed physical evidence of torture at Homecoming. Included were RPWs with broken teeth, open wounds of the ear (due to being struck with a cupped hand), and over 40% in the total sample with peripheral nerve injuries. These neuropathies were due, predominantly, to the coercive device known as the "ropes," which Dr. Hutchins has described. When a POW was tightly bound in unusual positions, the resulting ischemia of arms and legs produced both sensory and motor deficits. In some cases, when the elbows were tied together behind the back, the result was dislocated shoulders.

The stress of psychological tortures is another difficult-to-quantify variable. And, in our qualitative evaluation we cannot lose sight of the fact that we are dealing with the survivors of the captivity experience. A fascinating, but frightening observation of men who seemed to "give up" and curl up and die has been reported from both the Korean and Vietnam conflicts. It is frightening because we are apparently seeing what extreme stress can do to a person -- perhaps Selye's Exhaustion Stage of adaptation to stress. It is fascinating because it often made no sense in terms of the relative lack of danger in the situation (compared to what had passed), or

the type of behavior being manifested -- e.g., refusal to eat by a starving man. In viewing the RPWs as survivors, then, we can expect to learn something about how they perceived the stress, how they coped with stress, what price they have paid, and may pay in the future in terms of physical and psychological health, and finally, what they may have gained from the experience in terms of, e.g., greater appreciation for life and for loved ones, increased insight into their true selves, a "tempered steel" stress-reaction system, etc.

In her paper, Dr. Hunter will present some of the psychiatric data from follow-up examinations, particularly as they relate to family adjustment. At O/H, the following psychiatric diagnoses were reported: Transient Situational Disturbarces, with a 23% frequency in the SVN group and 5% in the NVN group; and Neuroses, with about 5% frequency in both groups. The greater dysfunction in the SVN group may be related to the presumed lesser degree of maturity in that group, exacerbated by lack of opportunity for formal leadership, and possibly, also, greater uncertainty as to their fate. Thus, the POWs in SVN had to cope with a harsher, more uncertain situation, and the younger POWs probably had fewer resources to draw upon.

It is perhaps somewhat surprising that the NVN group did not show a significant amount of psychopathology. The intense physical and psychological pressures applied to the POWs by their captors obtained some degree of "cooperation" from all of them, a situation which produced intense guilt and depression in these proud men who were used to controlling their affairs. Several factors likely ameliorated the deleterious effects of this stress: well-organized leadership and communication; an accepted group standard that "everyone can be broken - just bounce back and fight again": and, presumably, greater maturity.

One major area of stress has been ignored thus far: the inordinate duration of captivity suffered by POWs in Vietnam. As Dr. Hutchins has reported, the median captivity duration was six years; compare this with the maximum captivity durations in earlier wars: 11 months for the Pueblo crew, under 3 years in Korea, and under four years in WWII. Our Vietnam captivity duration data are confounded by the fact that from 1969 until release, the conditions in NVN improved considerably, as Dr. Hutchins has described.

DENTAL FINDINGS

There is one area which I would like to use to illustrate both the effects of captivity duration, and some additional positive residuals of the captivity experience. The area in question concerns the Dental findings at Homecoming.

Tracy and Kelly have reported that dental care was the single most time consuming treatment required at O/H. The RPWs have reported that a toothache was a very frightening experience because they knew the pain would be a continuing one. Treatment by the captors was either non-existent, or so amatuerish as to render the toothache the lesser of two evils.

In a study by Diem and myself, we analyzed the precaptivity and postcaptivity dental records, and captivity reports from 136 Navy and Marine Corps aviators who were repatriated from captivity in Southeast Asia. Those held captive for less than one year suffered significantly fewer problems than those held captive for four to eight years. Within the latter group, a significantly lower number of dental problems during captivity, and at repatriation were found among those RPWs who had: (1) a dental examination within one year prior to capture, (2) an examination which included radiographs, and (3) had all necessary problems treated.

Through ingenuity and communication with fellow POWs, workable forms of self-held dental care and first aid were developed: pieces of wire and bone were used as toothpicks, and threads from clothing or blankets became dental floss. Sterilized wires were used to pierce abscesses, tobacco on a painful tooth often brought relief. The toothpaste they received about every six months was labeled, in English, as an "antiseptic." The POWs used it on infections, wounds and burns.

The positive aspects of the dental experience can be summarized, and perhaps generalized as follows:

1. Be as well prepared physically and mentally as you can -- untreated problems may remain that way for a long time if you are captured, and they provide an additional foothold for exploitation by the captor.

2. Have a working knowledge of medical and dental anatomy and physiology and first-aid; perhaps a knowledge of psychology would fit here too, both of yourself and of others, including your captors.

3. Accept the fact that you are in a bad situation, but concentrate on the problem solving aspects of the situation.

It is quite obviously too soon to reach any definitive conclusions about the residuals of the stress of captivity; the comparison group data (which Dr. Hunter will describe), and continued longitudinal studies are required. Nevertheless, it is a good feeling indeed to be developing hypotheses as to why the POWs from Vietnam appear to be in better shape than would have been predicted from data on POWs from earlier wars.

THE PRISONER OF WAR AND HIS FAMILY

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It would be surprising indeed if the years the POW spent in solitude and privation did not reverberate in the world to which he returns. Since the manner in which families coped with the ambiguity of the separation period appears to be related to their adjustment to reunion, let's begin with the family's adjustment at the crisis of casualty. One of the fascinating early observations of the Center's staff was the recognition of the similarity between the captured husband and his waiting wife in terms of their experiences and feelings in adjusting to their dissimilar situations following casualty. Typically, the POW described the process of adjustment to capture as a cycle which began with psychological shock and numbing, followed by a period of several days or weeks of hyperalertness and intense interest in even the most trivial details of the prison environment and his captors. Then ensued a period of weeks, months, or even years of mental depression, which finally culminated in a conscious decision to survive, to make the best of things, to become active again -- a process which parallels the normal process of grieving which it indeed was. The man grieved over the loss of his freedom; the wife grieved over the loss of her husband.

Analogous to the man's process of adjusting to his capture, initially the wife too was psychologically numbed by the news of her husband's casualty. As the shock wore away, she put forth an intense effort to learn everything possible about the circumstances of his capture, whether he had been injured, or if he were still alive. When all sources of information were exhausted, the wife also entered a depressed phase, just as the POW had done. However, the wife did not lose her freedom as her husband had; in contrast, she suddenly found herself with both freedom and new responsibilities she had never before known. Moreover, over time, she learned to cope admirably with that new-found independence, and as the months and years passed, she became more and more reluctant to relinquish it. Personel in-depth interviews by the Center's staff in 1972, prior to the men's release, indicated the depressed stage for the wife usually ended sometime between the second or third year following casualty. At that point in time, she typically made a conscious decision that in order to cope with the marital limbo she was in, she had to quit "marking time in place and get on with living." She then perhaps became very active in POW/MIA organizations, returned to school, or went to work. She sometimes moved off the military post where she had waited during the initial months or years and purchased a home

in the civilian community and perhaps began dating.

Coping with the captivity of her husband, to some extent, meant closing out his role within the family system. She might adopt other coping styles, however. Just as the men used various mechanisms for coping with captivity, a variety of coping patterns -- some functional and others dysfunctional -- were utilized by wives in dealing with family separation. These patterns appeared to be related to the wife's background, perceived quality of marriage, husband's background, his motive for going to Southeast Asia, the stresses experienced by the wife during separation, and the family's preparation for separation.

The marital relationship of the repatriated captive is clearly vulnerable to the stresses of separation. After prolonged absences, many of the wives experienced extreme ambivalence and guilt immediately prior to their husbands' return. Family reunions were indeed stressful. Many of the wives of the POWs, however, reported to researchers from the Center for POW Studies that their greatest surprise at Homecoming was how little their husbands' basic personalities had actually changed during the long, stressful years of captivity.

Recent studies by the Center for POW Studies like Hill's (1949) classic WW II study, have shown that maintenance of the father's role in the family unit during separation was an important factor in the reintegration process. Three other variables found uniquely related to family reintegration were (a) the wife's assessment of the marriage before casualty, (b) the degree of wife's emotional dysfunction during separation, and (c) the length of the marriage at the time of the POW's casualty. In other words, the better the wife's satisfaction with the marriage and the longer the marriage at the time of casualty, and the fewer emotional problems the wife experienced during the separation period, the more likely the family would remain intact after the POW's return.

Children, too, had to cope with the captivity of their fathers, and their success in doing so reflected, to a large degree, their mother's ability to cope successfully with this stressful family crisis. Two or three years following father's release, however, the Center's studies suggest that father-absence continued to have a profound and generally negative effect upon these children when compared to general population norms -- effects apparently not offset by father's return. Until these POW/MIA children are contrasted with a matched comparison group

of children, however, we will not know if they really differ from any other comparable group of military children. These analyses are currently being carried out. Undoubtedly, the physical and psychological residuals the POW brings back with him, coupled with the psychosocial events he meets upon his return, combine, at least in part, to determine the course of his future adjustment.

At the time of the second year follow-up (1975), Navy psychiatrists found that the length of captivity was indeed a factor in whether or not the POW received a psychiatric diagnosis. The longer the captivity duration, the more likely the POW would receive a psychiatric diagnosis two years post-release. Most of the Navy returned POWs, however, appeared to be doing quite well psychiatrically two years after return. For those who were having problems, most of the symptoms appeared related to the marital relationship. Pathology related etiologically to the marital relationships had increased from 28 percent to 39 percent from the previous year (1974).

Diagnoses etiologically related to captivity factors, unlike those related to marriage, decreased during the previous year from 24 percent to 10 percent. It is noteworthy that there were significantly more psychiatric diagnoses two years post-return for those Navy POWs who had never married than for those who were either married or had married and later divorced.

Of those Navy POWs who showed definite psychiatric deterioration during the period from the first year follow-up to the second year follow-up examination, depression was the most common diagnostic picture, with a suggestion that an obsessive-compulsive personality pattern was a predisposing factor. Interestingly, those men who showed no change between the first- and second-year follow-up examinations received fewer psychiatric diagnoses than either the group that changed for the better or those men who changed for the worse.

Almost thirty percent of the Army, Navy, and Marine Corps POWs, who had been married prior to captivity were faced with marital dissolution within the first year after return. Many of these were marriages of short duration or problem marriages prior to casualty. Actually, the rate is not too different from divorce rates in general within the United States today. Typically, however, divorce rates within the military are lower than those for the general population. When compared with the divorce statistic for the matched comparison group preliminary analyses have shown the POW rate was two to three times higher. At this point in time three years post-release, we looked to see how many in each group had experienced at least one marital dissolution

since date of casualty. We found that 32.3 percent of the Army, 25.0 percent of the Marines, and 27.9 percent of the Navy POWs had experienced marital dissolution compared with only 11.1 percent of the comparison group for the Navy sample for the same period.

As mentioned previously, maintenance of a husband/father role within the family was found to be an important factor for successful family reintegration following return. Ironically, successful coping for the wife during the separation period required at least a partial "closing out" of the father's role through reassignment of his tasks to other family members. It was, then, predictable that major adjustments in family roles would have to occur in the initial weeks and months after repatriation in order for successful reintegration to take place.

Preliminary comparisons between the family role structure of Navy POW families and matched control families showed some interesting differences. Three years subsequent to return, the POW families, as a group, were significantly more "female-centered" or matriarchal than the more "traditional" control families. In other words, even though the POW father had returned to the family many months before, not all his previous roles had been reassumed by him. The wife of the POW was still performing some of the roles or family tasks that were more likely, in the group of comparison families, to be performed by the husband. Other between-group differences were apparent from these comparative studies. For example, the family of the POW was less independent and less cohesive, according to reports of the wife of the POW, when compared with the comparison families. The wives of the returned POWs also perceived their husbands' career adjustment as lower than did the wives of the matched controls in judging their husbands' job performance.

One other noteworthy finding should perhaps be mentioned here. It was found that the amount of solitary confinement the POW experienced during captivity was highly related to his perception of how well he was doing in his career three years subsequent to return. The longer the period of solitary, the lower the POW's perceived career adjustment. Before we put too much credence in this relationship, however, we must look further for objective measures of how well he is performing his job. Because these returned POWs, as a group, appeared to be trying to "make up for lost time" -- perhaps even neglecting family obligations -- during the years immediately following release from captivity and because these men tended to set extremely high expectations for themselves, they may have been performing more than adequately even though they perceived

they should be doing better. Again, it would appear there may be more problems in the post-return period for either the POW who over-achieves or the one who becomes depressed and gives up than for the middle-of-the-roader who sets more realistic goals for himself.

Although the absence of the father in a military role poses difficult problems for any child, when the father is a POW in a long and unpopular war, there are additional burdens imposed by the situation. Mothers must cope not only with their own problems and feelings, but also with those of their children. A recent study of the personal and social adjustment of the children of returned prisoners from Vietnam revealed that the children were significantly below the norms on over-all adjustment. However, we must caution that the norms used were somewhat outdated, and, further, until these preliminary findings are compared with the data for the comparison group children, we will not know if the POWs' children are really any different from any other group of military children. Preliminary between-group comparisons would indicate they may not be. Father-child relations within the POW family have been shown to be highly related to the father's perceived abuse in captivity. In other words, the more stressful the captivity experience was viewed by the POW, the more difficult it appeared to be for him to re-establish close and satisfying father-child relationships after return. A firm resistance posture and harsh captor treatment have been found related to poorer father-child relationships in later years. It was expected that POW father absence would show differential effects on children as a function of age and sex of a child. However, the Center's studies to date have been unable to establish any significant relationships between sex of child and age of child at the time of the father's casualty and satisfactory father-child relationships in the post-return period although such relationships may yet become apparent in later phases of these longitudinal studies.

In our session today we have presented but a few of the preliminary findings of the longitudinal studies of the 241 Army, Navy, and Marine Corps prisoner of war veterans released from Southeast Asia in 1973. These studies have as their primary goal the achievement of a better understanding of the multidimensional impact of captivity upon the men and their families. Preliminary findings indicate that incarceration by a foreign power has both immediate and long-term effects which may become manifest only after a latency period of several months or years. Both the events of casualty and reunion have been shown to be stressful family crises. To quote one physician who has followed the POWs closely during the four years subsequent to their

release from captivity: "It is now apparent that the process of recovery from the stress of shootdown, capture, captivity, and repatriation appears to require, among other things, recovery of self-esteem through reintegration with the group: the POW group, the military, the family, and society ... To the degree that there is failure, there will be ... psychopathology." Perhaps it should also be emphasized that although the Center's studies may at times appear to focus heavily of psychopathology, they can also afford new insights both into the manner whereby POWs are able to survive their ordeal and into the ways in which the ordeal of captivity served to strengthen them and build new resources -- both for the men and their families. Preliminary comparisons are beginning to suggest, in fact, that in some respects the returned POWs may actually be healthier than their matched comparisons. Our in-depth longitudinal study of this small group of men and families who have experienced prolonged stress offers a unique opportunity to understand how families cope in similarly unique ways.

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